

Appl. No. 09/359,599  
Amdt dated January 7, 2004  
Reply to Final Office Action of October 7, 2003

REMARKS/ARGUMENTS:

The above Amendments and these Remarks are in reply to the Final Office Action mailed October 7, 2003. Claims 1-27 were pending and rejected. In response, Applicants have amended claims 1, 10, and 19 and cancelled claims 9, 18, and 27. Applicants submit that all pending claims are patentable.

Claims 1-27 were rejected under 35 U.S.C. § 101 as being allegedly directed to non-statutory subject matter. Applicants contend that the remaining claims, as amended, are patentable under 35 U.S.C. § 101. The claims as amended now explicitly recite a practical application for the claimed invention.

Independent claims 1, 10, and 19 recite methods, systems and computer readable media for computing a diversity measure for a "group of web pages, C, having n elements, wherein the diversity measure indicates a level of complexity for the group of web pages." The controlling cases in the determination of statutory subject matter are the Federal Circuit's rulings in *State Street Bank & Trust Co., v. Signature Financial Group*, 47 U.S.P.Q.2d 1596 (Fed Cir. July 23, 1998), and *AT&T Corp. v. Excel Communications, Corp.* 50 USPQ2d 1447 (Fed Cir. April 14, 1999). *State Street* holds that a claim is statutory where it recites the "transformation of data ... by a machine through a series of mathematical calculations" to provide a "concrete, tangible and useful result."

In *Excel Communications*, the Court found a claim for generating and storing a "primary interexchange carrier code (PIC) to be patentable: "The PIC indicator represents information about the call recipient's PIC, a useful, non-abstract result that facilitates differential billing of long-distance calls made by an IXC's subscriber." The present invention generates a complexity measure for a web page. The diversity measure is concrete, because it has a specific definition, which is listed in the claim and described in greater detail in the specification. Like the claims in *Excel Communications*, the physical storage media need not be claimed for the result to be tangible. The result is useful as it allows for greater

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ease and organization of web pages. In light of the fact that the claimed invention performs a transformation of data through a series of mathematical calculations to produce a useful, concrete, and tangible result, it is submitted that claims 1-8, 10-17, and 19-26 recite patentable subject matter under 35 U.S.C. 101.

Claims 1-27 stand rejected under 35 U.S.C. 112 first paragraph. Specifically, the Examiner contends that the claims at issue are enabled only for web pages, rather than for all of combinatorial structures. As the Applicants have amended the independent claims to recite diversity measurements for groups of web pages, the Applicants contend that the claims, as amended are enabled.

Finally, the Examiner has rejected claims 1-27 under 35 U.S.C. 103(a) as being unpatentable over Malomosky in view of Popvic. Applicants respectfully traverse the rejection. Independent claims 1, 10, and 19 claim methods, systems, and computer readable media for measuring the complexity of groups of web pages, through the following steps:

- (a) identifying  $M$  substructures  $c_1$  through  $c_M$  each having  $m$  elements from among the  $n$  elements of the group of web pages  $C$ , where  $M$  equals  $n! / [(n-m)! m!]$ ;
- (b) for each substructure  $c_i$ , for  $i$  from 1 to  $M$ , determining a number  $n_i$  of the  $M$  substructures  $c_1$  through  $c_M$  that are similar to the substructure  $c_i$ ; and
- (c) computing a first entropy  $\Phi(m)$  based upon all the numbers  $n_i$  computed during step (b) and based upon  $M$  in computed step (a);

Neither Malomosky or Popvic disclose generating diversity measurements for groups of web pages by the claimed method. Malomosky, which discloses a system for modeling virtual paths, does not disclose identifying substructures each having a predetermined combinatorial substructures, determining similarity scores, and computing entropies for groups of web pages or any other structures. Malomosky includes no mention of breaking complex structures into their components and evaluating the similarities and dissimilarities of said components. Rather Malomosky discloses generating an entropy rate according to

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probabilistic functions and includes no mention of web pages or the measurement thereof. The system of Malomsky is directed solely towards analysis of network paths and provides no suggestion of alternate applications.

Popvic is similarly deficient of any mention of the claimed features. Popvic, is directed towards a system for generating models of geometric structures. The system of Popvic generates approximations of geometric models as groups of incrementally smaller triangles. Popvic discloses a gradual increase of resolution, wherein the structure is organized into multiple models having differing numbers of vertices, transformations between the models are established, and a final estimate is generated. Additionally, Popvic includes no mentions of groups of web pages or the measurement thereof. The method of Popvic is directed solely towards measure the structure and organization of geometric structures and provides no suggestion for the method's use outside of purely geometric structures.

Thus, as neither Popvic nor Malomsky, either alone, or in combination, disclose or suggest the features of the claimed invention, Applicants respectfully request that the Examiner withdraw his rejection.

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

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The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 24-0037 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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